recognition by, what might seem equally important, the medical profession. He could not believe that the medical profession would lend itself to a step so retrograde and so dangerous to the interests of the public.

Sir F. Buzzard next pointed out that in the Bill an osteopathic student had four years in which to acquire that amount of knowledge which a medical student had to acquire in six or seven years before he qualified. No provision was made for the study of biology, physics, and chemistry.

Lord Esher said that chemistry was in the Bill.

Sir F. Buzzard said that that was chemistry on the organic or biochemical side. No time was provided for the elements of chemistry, physics, and biology, a knowledge of which was an absolutely essential preparation for the understanding of anatomy, physiology, pathology, medicine, and surgery. The difference in length of training between the medical student and the osteopathic student was more like three years than one year. Osteopaths insisted on a very high degree of skill and experience in their special methods of treatment, and if that was to be attained during the four-years course it must be at the expense of what was far more important, the acquirement of a knowledge of disease such as would make the student efficient in diagnosis. Incidentally the witness protested against the term "orthodox medicine." There was no such thing. There were orthodox principles in medical education. Throughout the curriculum students were invited to observe by means of experiment and in other ways what were the ascertained facts with regard to the structure and function of the body. He was made acquainted with a number of theories, many of which could not be proved to the satisfaction of everyone, but he was not asked to commit himself to any. Most effort was directed to making the student skilful in diagnosis, the most important equipment for anyone in the practice of medicine.

Misunderstanding appeared to be rife with regard to the time and labour spent by students in learning about drugs. Special instruction in that subject was limited, and the student gathered his knowledge of drugs mainly from observing how and when his teachers employed them. He was expected to be well versed in the use of drugs which were specifics. But the medical profession had long ceased to regard drugs as the most important factor in maintaining health and combating disease; it had even reached that position long before he was a medical student.

Quality of Teaching and Research

The real criterion of training (Sir Farquhar Buzzard continued) was the quality of the teaching and of the research on which it was based. Here he drew attention to *The Principles of Osteopathy*, by Yale Castlio, D.O., professor of the principles of osteopathy and supervisor of the clinics, Kansas City College, widely quoted by the *British Osteopathic Review* as an authority. Professor Castlio wrote:

> "My experience in studying the principles of osteopathy while in college, confirmed later by experience in teaching this subject, has convinced me that a new presentation of osteopathic principles is vitally necessary. . . . We have now at our disposal a considerable body of experimental evidence, scientifically exact, conservatively interpreted."

He had studied this book with some care, especially the part which dealt with the nervous system, and had been amazed at the ignorance displayed by the author in regard to the anatomy, physiology, and pathology of the spinal cord. "The misstatements and misrepresentations are so glaring that no one who has any knowledge of the subject would waste time in finishing the book, and it would be almost criminal to put it in the hands of a medical student." He instanced one among many examples—a photograph of a section of the spinal cord, described as "illustrative of the effects of the osteopathic lesion on the spinal medulla." The description went on: "Area near the tip of the posterior horn. Note beginning of degeneration of nerve cells, pericellular space, swollen axis cylinders, several hyperaemic vessels, and the cell infiltration." In fact, it was not a photograph of the posterior horn at all, but of the base of the anterior horn—a fundamental point which any student of anatomy would appreciate. Of the degeneration of cells there was no evidence, the pericellular spaces were not pathological at all, there were no swollen axis cylinders. The whole thing, coming from a research institute, exemplified gross ignorance of the anatomy and pathology of the spinal cord.

No doubt he would be asked why more had not been done to investigate the claims of osteopathy to scientific recognition. The sciences of physiology, anatomy, pathology, and medicine covered an enormous field, in which thousands of well-trained researchers were working all over the world. There were hundreds of theories put forward with prima facie evidence sufficient to justify further inquiry. What was the prima facie evidence put forward in support of osteopathy? He had indicated the worth of the scientific evidence. He had voluntarily listened to a distinguished osteopath demonstrating the theory of manipulation, but had not been convinced that the claims could be substantiated. A large number of his patients had consulted osteopaths before they came to him. The patient said, "And then I went to an osteopath, and he told me——"; and there he always interrupted and said, "And he told you there were two or three vertebrae wrong and he would put them right," and the patient would reply, "That is what he did say. How ever did you know that?"

"When that is one's experience one is not prepared to take up osteopathy as being in any sense a new and valuable system of healing art. Nor can one be impressed by a system which tells the student from the very beginning of his career that osteopathic theory and treatment must be adopted. In medicine we do nothing of that kind at all. We do not teach the students anything except what can be demonstrated to the full. We put the theories before them, but do not ask them to adopt any."

The committee adjourned until Friday, March 29th.

BRITISH MEMORIAL TO MARIE CURIE

A DAUGHTER'S TRIBUTE

A banquet to support the British memorial to Marie Curie was held at Claridges on March 20th, under the chairmanship of Mr. Neville Chamberlain, Chancellor of the Exchequer. The immediate purpose of the fund which is being raised is to provide £50,000 for the endowment, extension, and maintenance of the Marie Curie Hospital, Fitzjohn's Avenue, Hampstead, and an additional income for that institution of £5,000 a year. Mr. Chamberlain and the Countess of Minto, president of the memorial, received the guests, who included the French and Spanish ambassadors and distinguished representatives of medicine and physicial science.

Mr. Neville Chamberlain, who said that he had been asked to preside owing to his long association with the Ministry of Health, paid what he described as a humble tribute to a very great woman, a most original and fertile investigator, and one of the great benefactors of the human race. Her accomplishments, which would have been wonderful in any man, seemed almost miraculous in a woman—a remark which was greeted with some laughter and gentle protest. Madame Curie, he said, owed nothing to wealth and influence; she was gifted with great powers of mind, and had a passionate devotion to the pursuit of knowledge. He mentioned her lavish and self-forgetful gifts—she presented to the Radium Institute in Paris the whole of the radium salts which she and her husband had extracted from pitchblende, and later gave to the same body a gram of radium which had been presented to her personally by the women of America.

The toast "The Memory of Madame Curie" was responded to in a very felicitous speech by one of her two daughters, Mlle Eva Curie, a well-known musician. She said that her mother often repeated the words, "In science we should be interested in things, not persons." The words on her lips meant chiefly that her own person was of no importance compared with the things to which she devoted her life. A discovery made by any scientist gave her as sincere joy as a discovery of her own. Tributes paid exclusively to her personal glory were a sort of torture to one of her extreme timidity and natural reserve. The burden of celebrity overwhelmed and oppressed her, and at the end of her life she had still to say, "I am nothing but a student." Those responsible

for the Marie Curie memorial seemed to have understood this, for they had paid to this modest woman the only tribute she would have liked and accepted. They had given her name to a beautiful and generous work. In the simple name of the Marie Curie Hospital she saw the epilogue of a fairy tale which started in 1891, when a poor Polish student came to Paris to learn about the most abstract and severe things to which a woman ever got devoted. Marie Curie gave up her rule of life to be interested in things, not persons, when she knew that there were thousands of people who were suffering and whom she could help. All the passion that she scorned to devote to the seeking of honours she devoted to helping those who needed her, and whom she had suddenly the marvellous power to relieve. Mlle Curie spoke of her mother's work during the war, when she drove radiological cars on the French and Belgian fronts, and carried out the *x*-ray examination of thousands of wounded, and of her post-war activities in the practical development of radium therapy.

"Marie Curie lives no more. But in a hospital which bears her name, surrounded by the trees and the flowers that she liked so much, women scientists, prominent women doctors, are now using the power of radium to cure other women who suffer and who need help. Some of these patients do not even know, perhaps, who was my mother, nor what is radium. It does not matter, and it is part of the fairy tale. Thanks to Marie Curie and thanks to you, these patients will be relieved from their pains, and often cured. The creation of hospitals like the Marie Curie Hospital was one of my mother's greatest dreams. I am happy and grateful to think that it is in England, in a great country which my mother admired and loved, that that dream of hers has been realized."

After a speech so moving, the remainder of the oratory was in danger of being anticlimax, but it was worthily sustained by Sir William Bragg, who spoke of the eminence of Madame Curie in physics, and of the difficulty and hardship of the conditions under which her discoveries were made—in a building with an asphalt floor and a glass roof, by no means proof against rain, a hothouse in summer, and in winter scarcely warmed by a single stove, with furniture consisting of old deal tables on which the specimens were deposited. But Madame Curie wrote, "I shall never forget the ravishing joy we used to have when, on coming in at night, we saw the faintly luminous shapes of the produce of our toil."

Miss M. M. Chadburn, chairman of the hospital, anticipated the possible criticism: Why multiply small hospitals? She pointed out that the Marie Curie was linked up with four general hospitals and was recognized by the Medical Research Council as a centre for treatment by radium. It had eighteen surgeons who had agreed to co-operate in this work, all using the same technique. As to results, she mentioned several matters of encouragement, including the fact that the two first patients treated in the hospital, which was founded in 1929, were alive to-day, free from any signs and symptoms of disease. Miss Addison Philips gave expression of gratitude to the donors, and amused the company with some epigrams with a feminist bias, but she added that women had undertaken this work at the Marie Curie in no spirit of ostentation or mean emulation, but only with the desire to extend the boundaries of knowledge and relieve suffering. Mrs. Walter Runciman proposed the health of the chairman.

At the close of the proceedings it was announced that a sum of £3,857 had been so far collected or promised for the fund. It was also stated that the expenses of the banquet had been defrayed anonymously, so that the whole amount given would go direct to the purposes of the memorial.

The seventh International Congress on Industrial Accidents and Diseases will be held in Brussels from July 22nd to 27th. The chairman of the British Committee is Sir Thomas Oliver. Full details of the congress may be obtained from the secretary of the Industrial Welfare Society, 14, Hobart Place, S.W.1.

Scotland

Incapacitating Sickness in Scotland

The fourth of a series of annual summaries of the principal features of incapacitating illness among the insured population of Scotland has been issued by the Department of Health, and deals with the year July 1st, 1933, to June 30th, 1934. The report is favourable in that the number of completed incapacities is appreciably less than the number for the previous year; in some respects the report is the most favourable since the compilation of these summaries began four years ago. The greater part of this improvement is due to the diminution in the number of cases of influenza, for incapacities attributed to this cause were only 35,652 as against 109,462 in the preceding year, while days of sickness attributable to influenza were 1,092,429 fewer. There was a decrease also in bronchitis and pneumonia. The decline in these, however, is set off to some extent by definite increases in tonsillitis, scarlet fever, erysipelas, diphtheria, acute rheumatism, and superficial inflammatory conditions. Another favourable feature of the report is the fact that among married women the incidence of incapacities has over the past four years consistently improved in contrast with single women or men. In the last three years there was an average annual diminution of 2,000 cases of incapacitating diseases. An attempt has been made in this report, for the first time, to study the complex field of occupational morbidity by an investigation of the disabilities of miners. With regard to the incidence of incapacity in 1930–1, there were 224 cases per 1,000 of the insured population, which by 1933–4 had decreased to 202, a reduction of over 15 per cent. The total number of cases in the earlier year was 378,742, and in 1933–4 it was 341,046 out of an insured population of 1,689,468. The rate per 1,000 in 1933–4 was 190 cases among males and 226 among females. The number of days lost per person during the year was for both sexes 9.99—for males 9.19 and for females 11.62—the total lost by both sexes together being 16,870,515. The average duration of incapacities was for both sexes together 49.47 days—for males 48.32 and for females 51.47, each of these showing an increase over the figure for the previous year. An interesting feature of the report deals with the incidence of incapacitating sickness in different occupational groups. There was a considerable excess of incapacitating sickness among those employed in mining. Textile and transport workers and makers of foods and drinks came a considerable distance below miners. On the other hand, workers in metals, in the building trades, and those employed in commercial occupations and in agriculture and fishing showed an incidence of sickness less than half that of miners. The lowest incidence was among domestic servants, chauffeurs, etc. A very substantial difference thus exists between the sickness rate of miners and that of other males in Scotland. On the experience of three years, from July, 1930, to June, 1933, the annual average duration of incapacity per miner was 18 days as compared with 8.7 days for other men. This was produced chiefly by a much higher frequency rate of sickness than by longer duration of individual incapacities. Thus among miners there were 405 cases of sickness per 1,000 miners during this period as against 190 for all other males in Scotland. Concerning the causes of incapacity, miners show better health than the average in respect to tuberculosis, malignant tumours, diabetes, infectious diseases, cerebral haemorrhage, and nervous debility; in all other specified causes the miners' rates of sickness are in excess.